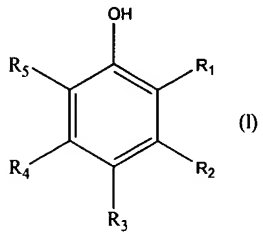
What is Claimed is:

1. A compound of Formula I:



(I)

Wherein R_1 and R_5 are each independently selected from the group consisting of hydrogen, a C_2 through C_{12} straight chain alkyl, a C_3 through C_{12} branched alkyl group, and a C_3 through C_6 cycloalkyl group; and

R_2 R_3 and R_4 are each independently selected from the group consisting of hydrogen, a C_3 through C_{12} straight chain alkyl optionally substituted with hydroxyl, a C_3 through C_{12} branched alkyl optionally substituted with hydroxyl, and a C_3 through C_6 cycloalkyl optionally substituted with hydroxyl.

With the proviso that

At least one of R_1, R_2, R_3, R_4 and R_5 are selected from the group consisting of a C_2 through C_{12} straight chain alkyl, a C_3 through C_{12} branched alkyl

group, and a C_3 through C_6 cycloalkyl group;

and

At least one of R_2, R_3, and R_4 are selected from the group consisting of a C_3 through C_{12} straight chain hydroxyalkyl, a C_3 through C_{12} branched hydroxyalkyl or a C_3 through C_6 hydroxycycloalkyl; and

each of R_1, R_2, R_3, R_4 and R_5 are not tert-butyl.

2. The compound of claim 1 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain alkyl, a C_3 through C_8 branched alkyl group, and a C_3 through C_6 cycloalkyl group.

3. The compound of claim 1 wherein at least one of R_2, R_3, and R_4 is selected from the group consisting of a C_3 through C_8 straight chain hydroxyalkyl, a C_3 through C_8 branched hydroxyalkyl or a C_3 through C_6 hydroxycycloalkyl.

4. The compound of claim 2 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain alkyl.

5. The compound of claim 2 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 branched alkyl.

6. The compound of claim 2 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_6 cycloalkyl.

7. The compound of claim 2 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of methylethyl and 2-methylpropyl.

8. The compound of claim 3 wherein at least one of R_2, R_3, and R_4 is selected from the group consisting of a C_3 through C_8 straight chain hydroxyalkyl.

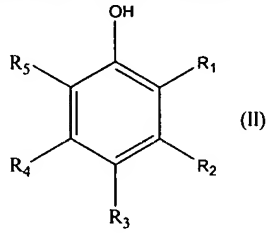
9. The compound of claim 3 wherein at least one of R_2, R_3, and R_4 is a C_3 through C_8 branched hydroxyalkyl.

10. The compound of claim 3 wherein at least one of R_2, R_3, and R_4 is selected from the group consisting of a C_3 through C_6 hydroxycycloalkyl.

11. The compound of claim 3 wherein at least one of R_2, R_3, and R_4 is selected from the group consisting of 1-hydroxypropyl, 2-hydroxypropyl, 3-hydroxypropyl, 1-hydroxybutyl, 2-hydroxybutyl, 3-hydroxybutyl, and 4-hydroxybutyl .

12. The compound of claim 2 wherein R_3 is selected from the group consisting of a C_3 through C_{12} straight chain hydroxyalkyl, a C_3 through C_{12} branched hydroxyalkyl or a C_3 through C_6 hydroxycycloalkyl.

13. An antimicrobial composition comprising an antimicrobial acceptable carrier and an effective antimicrobial amount of at least one compound of Formula (II):



(II)

Wherein R_1, R_2, R_3, R_4 and R_5 are each independently selected from the group consisting of hydrogen, a C_1 through C_{12} straight chain alkyl optionally substituted with hydroxyl, a C_3 through C_{12} branched alkyl optionally substituted with hydroxyl, and a C_3 through C_6 cycloalkyl optionally substituted with hydroxyl;

With the proviso that

At least one of R_1, R_2, R_4, R_3 and R_5 are selected from the group consisting

of a C_1 through C_{12} straight chain alkyl, a C_3 through C_{12} branched alkyl group, and a C_3 through C_6 cycloalkyl group; and

At least one of R_1, R_2, R_4, R_3 and R_5 are selected from the group consisting of a C_1 through C_{12} straight chain hydroxyalkyl, a C_3 through C_{12} branched hydroxyalkyl or a C_3 through C_6 hydroxycycloalkyl.

14. The antimicrobial composition of claim 13 wherein the antimicrobial effective carrier is selected from the group consisting of water, saline, alcohol, glycerin, propylene glycol, mineral oil, petrolatum and mixtures thereof.

15. The antimicrobial composition of claim 13 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain alkyl, a C_3 through C_8 branched alkyl group, and a C_3 through C_6 cycloalkyl group.

16. The antimicrobial composition of claim 13 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain hydroxyalkyl, a C_3 through C_8 branched hyroxyalkyl group, and a C_3 through C_6 hydroxycycloalkyl group.

17. The antimicrobial composition of claim 15 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain alkyl.

18. The antimicrobial composition of claim 15 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 branched alkyl.

19. The antimicrobial composition of claim 15 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_6 cycloalkyl.

20. The antimicrobial composition of claim 15 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of methylethyl and 2-methylpropyl.

21. The antimicrobial composition of claim 16 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain hydroxyalkyl.

22. The antimicrobial composition of claim 16 wherein at least one R_1, R_2, R_3, R_4 and R_5 is a C_3 through C_8 branched hydroxyalkyl.

23. The antimicrobial composition of claim 16 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_6 hydroxycycloalkyl.

24. The antimicrobial composition of claim 16 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of 1-hydroxypropyl, 2-hydroxypropyl, 3-hydroxypropyl, 1-hydroxybutyl, 2-hydroxybutyl, 3-hydroxybutyl, and 4-hydroxybutyl.

25. The antimicrobial composition of claim 16 wherein R_3 is selected from the group consisting of a C_3 through C_{12} straight chain hydroxyalkyl, a C_3 through C_{12} branched hydroxyalkyl or a C_3 through C_6 hydroxycycloalkyl.

26. The antimicrobial composition of claim 25 wherein R_3 is selected from the group consisting of 4-hydroxybutyl and butan-2-ol.

27. The antimicrobial composition of claim 13 wherein the antimicrobial effective amount is from about 0.0001 to 10% by weight of the total weight of the antimicrobial composition.

28. The antimicrobial composition of claim 27 wherein the antimicrobial effective amount is from about 0.001 to 5% by weight of the total weight of the antimicrobial composition.

29. An oral composition comprising an orally acceptable carrier and an effective antimicrobial amount of at least one compound of Formula (II):

30. The oral composition of claim 29 wherein the orally acceptable carrier is selected from the group consisting of water, saline, alcohol, glycerin, propylene glycol, and mixtures thereof.

31. The oral composition of claim 29 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain alkyl, a C_3 through C_8 branched alkyl group, and a C_3 through C_6 cycloalkyl group.

32. The oral composition of claim 29 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain hydroxyalkyl, a C_3 through C_8 branched hyroxyalkyl group, and a C_3 through C_6 hydroxycycloalkyl group.

33. The oral composition of claim 31 wherein at least one of R_1, R_2, R_3, R_4 and

R_5 is selected from the group consisting of a C_3 through C_8 straight chain alkyl.

34. The oral composition of claim 31 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 branched alkyl.

35. The oral composition of claim 31 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_6 cycloalkyl.

36. The oral composition of claim 31 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of methylethyl and 2-methylpropyl.

37. The oral composition of claim 32 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain hydroxyalkyl.

38. The oral composition of claim 32 wherein at least one R_1, R_2, R_3, R_4 and R_5 is a C_3 through C_8 branched hydroxyalkyl.

39. The oral composition of claim 32 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_6

hydroxycycloalkyl.

40. The oral composition of claim 32 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of 1-hydroxypropyl, 2-hydroxypropyl, 3-hydroxypropyl, 1-hydroxybutyl, 2-hydroxybutyl, 3-hydroxybutyl, and 4-hydroxybutyl.

41. The oral composition of claim 32 wherein R_3 is selected from the group consisting of a C_3 through C_{12} straight chain hydroxyalkyl, a C_3 through C_{12} branched hydroxyalkyl or a C_3 through C_6 hydroxycycloalkyl.

42. The oral composition of claim 41 wherein R_3 is selected from the group consisting of 4-hydroxybutyl and butan-2-ol.

43. The oral composition of claim 29 wherein the antimicrobial effective amount is from about 0.0001 to 10% by weight of the total weight of the oral composition.

44. The oral composition of claim 43 wherein the antimicrobial effective amount is from about 0.001 to 5% by weight of the total weight of the oral composition.

45. The oral composition of claim 29 further comprising at least one essential oil.

46. The oral composition of claim 45 wherein the at least one essential oil is selected from the group consisting of thymol, menthol, eucalyptol, methyl salicylate, and combinations thereof.

47. The oral composition of claim 46, wherein the essential oil comprises:
an amount of from about 0.005 to 0.5 % menthol;
an amount of from about 0.005 to 0.5 % eucalyptol;
an amount of from about 0.005 to 0.5 % methyl salicytate; and
an amount of from about 0.005 to 0.5 % thymol.

48. A method of reducing the presence of microorganisms on a substrate comprising treating the substrate with an effective amount of the antimicrobial composition of claim 13.

49. The method of claim 48 wherein the antimicrobial effective carrier is selected from the group consisting of water, saline, alcohol, glycerin, propylene glycol, mineral oil, petrolatum, and mixtures thereof.

50. The method of claim 48 wherein the antimicrobial effective amount is from about 0.0001 to 10% by weight.

51. The method of claim 50 wherein the antimicrobial effective amount is from about 0.001 to 5% by weight.

52. The method of claim 48 wherein the antimicrobial composition is in the form of a member selected from the group consisting of a deodorant, a soap, an ointment, and a cream.

53. A method of reducing the presence of microorganisms in an oral cavity comprising administering into the oral cavity a microorganism-reducing effective amount of the method of claim 48.

54. The method of claim 53 wherein the orally acceptable carrier is selected from the group consisting of water, saline, alcohol, glycerin, propylene glycol, and mixtures thereof.

55. The method of claim 53 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain alkyl, a C_3 through C_8 branched alkyl group, and a C_3 through C_6 cycloalkyl group.

56. The method of claim 53 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is

selected from the group consisting of a C_3 through C_8 straight chain hydroxyalkyl, a C_3 through C_8 branched hyroxyalkyl group, and a C_3 through C_6 hydroxycycloalkyl group.

57. The method of claim 55 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain alkyl.

58. The method of claim 55 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 branched alkyl.

59. The method of claim 55 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_6 cycloalkyl.

60. The method of claim 55 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of methylethyl and 3-methylpropyl.

61. The method of claim 56 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_8 straight chain hydroxyalkyl.

62. The method of claim 56 wherein at least one R_1, R_2, R_3, R_4 and R_5 is a C_3 through C_8 branched hydroxyalkyl.

63. The method of claim 56 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of a C_3 through C_6 hydroxycycloalkyl.

64. The method of claim 56 wherein at least one of R_1, R_2, R_3, R_4 and R_5 is selected from the group consisting of 4-hydroxybutyl and butan-2-ol.

65. The method of claim 56 wherein R_3 is selected from the group consisting of a C_3 through C_{12} straight chain hydroxyalkyl, a C_3 through C_{12} branched hydroxyalkyl or a C_3 through C_6 hydroxycycloalkyl.

66. The method of claim 65 wherein R_3 is selected from the group consisting of 4-hydroxybutyl and butan-2-ol.

67. The method of claim 53 wherein the antimicrobial effective amount is from about 0.0001 to 10% by weight.

68. The method of claim 67 wherein the antimicrobial effective amount is from about 0.001 to 5% by weight.

69. The method of claim 53 wherein the oral composition is in the form of a member selected from the group consisting of a mouthrinse, a dentifrice, a

chewing gum, a dispersible oral film, a lozenge, and an oral film forming dentifrice.